

REMARKS

Entry of the above-noted amendments, reconsideration of the Application, and allowance of all claims pending are respectfully requested. By this amendment, claims 2-3, 5-7, 15-16, 20-21, 24-27, 29, 31-32, and 34-39 are amended, claims 1, 28, 30, and 33 are canceled, and claims 40-41 are added. These amendments to the claims constitute a bona fide attempt by Applicant to advance prosecution of the Application and obtain allowance of the pending claims, and are in no way meant to acquiesce to the substance of the rejections. Support for the amendments can be found throughout the specification, drawings, and claims and thus, no new matter has been added. Claims 2-27, 29, 31-32, and 34-41 are pending.

Attorney Docket Number:

Please update the Attorney Docket Number to:

UIC10386P00100US

Entry of this update is respectfully requested.

Allowable Subject Matter:

Claims 6, 8, 11-12, 16-19, 31-32, and 35 were objected to as being dependent upon a rejected base claim, but were indicated as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant gratefully acknowledges this indication of allowability.

Rewritten Independent Claim 16 and Dependent Claims 2-15 and 17-19

Applicant has rewritten claim 16 in independent form including all of the limitations of the base claim 1. There was no intervening claim. Claim 16 recites exactly the limitations of its original filing only now in independent form rather than dependent form.

Dependent claims 2-3, 5-7, and 15 that had depended from previous base claim 1, have been amended to now depend from rewritten independent claim 16. Dependent claims 4 and 8-14 depend from now independent claim 16 by amendment of intervening claims 3 and 7.

An indication of allowance of independent claim 16 and dependent claims 2-15 and 17-19 is therefore respectfully requested.

Independent Claim 20 Amended to Incorporate Limitations of Allowable Claim 16

Applicant has amended independent Claim 20 to incorporate the limitations of allowable Claim 16.

An indication of allowance of independent claim 20 and its dependent claims 21-26 is therefore respectfully requested.

Independent Claim 27 Amended to Incorporate Limitations of Allowable Claim 16

Applicant has amended independent Claim 27 to incorporate the limitations of allowable Claim 16. An indication of allowance of independent claim 27 is therefore respectfully requested.

In addition, Applicant has added Claim 40 dependent from claim 27 to recite limitations of allowable Claim 31. Claim 40 is believed allowable for at least the same reasons as independent Claim 27, as well as for its own additional characterizations.

Rewritten Independent Claim 31 and Dependent Claims 29 and 32

Applicant has rewritten claim 31 in independent form including all of the limitations of the base claim 28 and the one and only intervening claim 30. Claim 31 recites exactly the limitations of its original filing only now in independent form rather than dependent form.

Dependent claims 29 and 32 that had depended from previous base claim 28, have been amended to now depend from rewritten independent claim 31.

An indication of allowance of independent claim 31 and its dependent claims 29 and 32 is therefore respectfully requested.

Rewritten Independent Claim 35 and Dependent Claims 34 and 36-38

Applicant has rewritten claim 35 in independent form including all of the limitations of the base claim 33. There was no intervening claim. Claim 35 recites exactly the limitations of its original filing only now in independent form rather than dependent form.

Dependent claims 34 and 36-38 that had depended from previous base claim 33, have been amended to now depend from rewritten independent claim 35.

An indication of allowance of independent claim 35 and its dependent claims 34 and 36-38 is therefore respectfully requested.

Allowed Subject Matter:

Claim 39 is allowed. Applicant gratefully acknowledges this indication of allowance. In addition, Applicant has added Claim 41 dependent from claim 39 to recite limitations of allowable Claim 31. Claim 41 is believed allowable for at least the same reasons as independent Claim 39, as well as for its own additional characterizations.

Claim Rejections - 35 U.S.C. §§ 102 and 103:

Without acquiescing in the rejections, Applicant respectfully submits the rejections are moot in view of the claim amendments presented herewith. All the independent claims have been either allowed or amended to incorporate allowable subject matter, as discussed above.

Withdrawal of the §§ 102 and 103 rejections is therefore respectfully requested.

Double Patenting:

Claims 13-14 are objected to under 37 C.F.R. §1.75 as being a substantial duplicate of claims 11 and 12. The Office Action states:

Claims 13-14 are objected to under 37 C.F.R. 1.75 as being a substantial duplicate of claims 11 and 12. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k), *Office Action*, 04/24/09, pg. 6.

MPEP §706.03(k) states:

706.03(k) Duplicate Claims

Inasmuch as a patent is supposed to be limited to only one invention or, at most, several closely related indivisible inventions, limiting an application to a single claim, or a single claim to each of the related inventions might appear to be logical as well as convenient. However, court decisions have confirmed applicant's right to restate (i.e., by plural claiming) the invention in a reasonable number of ways. Indeed, a mere difference in scope between claims has been held to be enough.

Nevertheless, when two claims in an application are duplicates, or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other claim under 37 CFR 1.75 as being a substantial duplicate of the allowed claim.

Claims 11 and 13: Not Substantial Duplicates

Claim 11 recites, *inter alia*, "outputting the outcome of the multi-step iterative separator once a maximal absolute value of the cross correlations is below a pre-determined threshold

value.” Claim 13 recites, *inter alia*, “outputting the outcome of the multi-step iterative separator once a sum of absolute values of the cross correlations is below a pre-determined threshold value.” Applicant respectfully submits that “a maximal absolute value” (Claim 11) and “a sum of absolute values” (Claim 13) are neither duplicates nor so close in content that they both cover the same thing.

Claims 12 and 14: Not Substantial Duplicates

Claim 12 (dependent from Claim 11) recites, *inter alia*, “entering the set of estimated separation signals as initialization parameters to an artificial neural network that iteratively outputs incremental changes to the initialization parameters until the maximal absolute value is below the pre-determined threshold value.” Claim 14 (dependent from Claim 13) recites, *inter alia*, “entering the set of estimated separation signals as initialization parameters to an artificial neural network that iteratively outputs incremental changes to the initialization parameters until the sum of the absolute values is below the pre-determined threshold value.” Applicant respectfully submits that “the maximal absolute value” (Claim 12) and “the sum of the absolute values” (Claim 14) are neither duplicates nor so close in content that they both cover the same thing.

Withdrawal of the double patenting rejection is therefore respectfully requested.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 2-27, 29, 31-32, and 34-41.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 23-0785 pursuant to 37 C.F.R. 1.25. Additionally charge any fees to Deposit Account 23-0785 under 37 C.F.R. §§ 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees.

Please consider this a general authorization to charge any fee that is due in this case, if not otherwise timely paid, to Deposit Account No. 23-0785.

Applicant hereby authorizes charging of Deposit Account No. 23-0785 for any additional fees associated with entering the aforementioned claims.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

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